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Notice of Allowability	Application No.	Applicant(s)	
	10/825,317	KOBAYASHI ET AL.	
	Examiner	Art Unit	
	Audrey Y. Chang	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on December 13, 2006.
2. ☒ The allowed claim(s) is/are 11-16, 18, 24 and 25 (renumbered as 1-9).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|

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EXAMINER'S AMENDMENT

Remark

- This Office Action is in response to applicant's amendment filed on December 13, 2006, which has been entered into the file.
- By this amendment, the applicant has amended claims 11 and 12.
- Claims 1-10, 17, 18-23 and 26-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 28, 2005.
- Claims 11-16, 18 and 24-25 remain pending in this application.

Drawings

1. The drawings were received on December 13, 2006. These drawings are acceptable.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Surinder Sachar (Reg. No. 34,423) on December 13, 2006.

The application has been amended as follows:

In the claims

Delete claims 1-10, 17, 19-23, and 26-27,

Claim 11 (Currently Amended): A method for displaying a three-dimensional image comprising the steps of:

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generating a plurality of input images, each of the input images corresponding to one of multiple viewpoints including a right-eye position and a left-eye position of a viewer;

allocating in a time dividing manner two or more of the input images to each of different image display regions of an image display device;

switching said two or more input images at a certain timing to display one of said two or more images in each of the image display regions such that at a first timing a first of the input images is presented at a respective image display region, and at a second timing a second of the input images is displayed at the same respective image display region;

separating light images, for right-eye position and for left-eye position, output from the image display regions from one another using an image separator positioned on a viewpoint side of the image display device; and

switching a deflection direction of deflected light in synchronization with the first and second timing of presenting the two or more input images to deflect a light path of each of the light images emitted from the image separator toward a different respective of the multiple viewpoints synchronized with the switching timing such that the first image from the respective image display region is deflected to a first of the multiple viewpoints at the first timing and the second image from the same respective image display region is deflected to a second of the multiple viewpoints at the second timing.

Claim 12 (Currently Amended): A three-dimensional image display apparatus comprising:

an image generator configured to generate multiple input images, each of the input images corresponding to one of multiple viewpoints including a right-eye position and a left-eye position of a viewer;

an image display device positioned at a prescribed distance from the multiple viewpoints and having multiple different image display regions, two or more of the input images being allocated in a time

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dividing manner to each of the image display regions such that at a first timing a first of the input images is presented at a respective image display region, and at a second timing a second of the input images is displayed at the same respective image display region, the image display device being configured to switch said two or more input images at a certain timing to display one of said two or more input images in the associated image display region;

an image separator positioned on a viewpoint side of the image display device and configured to separate light images, for right-eye position and for left-eye position, output from the image display device from one another; and

a light deflector configured switching a deflection direction of deflected light in synchronization with the first and second timing of presenting the two or more input images to deflect, to deflect a light path of each of the light images emitted from the image separator so as to guide each of the light images to different respective of the multiple viewpoints such that a first image from the respective image display region is deflected to a first of the multiple viewpoints at a first timing and a second image from the same image display region is deflected to a second of the multiple viewpoints at a second timing.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance: of the prior art references considered none has disclosed a *method and an apparatus for three dimensional image display*, wherein the image display apparatus comprises *an image generator* for generating multiple input images, each *input image* corresponding to *one* of multiple viewpoints and *including a right-eye position and a left eye position of a viewer*, wherein two or more of these input images are allocated to each of the image display regions of an image display device, in a time dividing manner explicitly recited in claims 11 and 12. The image display apparatus further comprises *an image separator* for separating the light images, for right eye position and for left-eye position, from the image display device from each other and a *light deflector*

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configured to *switch* the deflection direction of deflected light *in synchronization* with the first and second timing of presenting the two or more input images such that at first timing a first input image from the respective image display region is deflected to a first of the multiple viewpoints and at a second timing a second input image from the same image display region is deflected to a second multiple viewpoints.

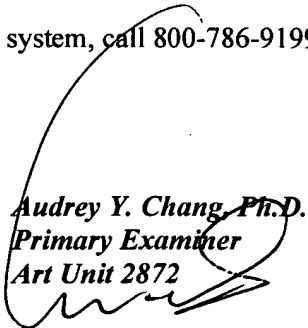
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Audrey Y. Chang, Ph.D.
Primary Examiner
Art Unit 2872



A. Chang, Ph.D.

Entry
Approved
3-27-07
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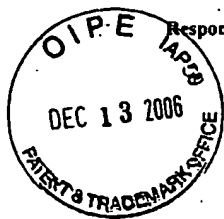
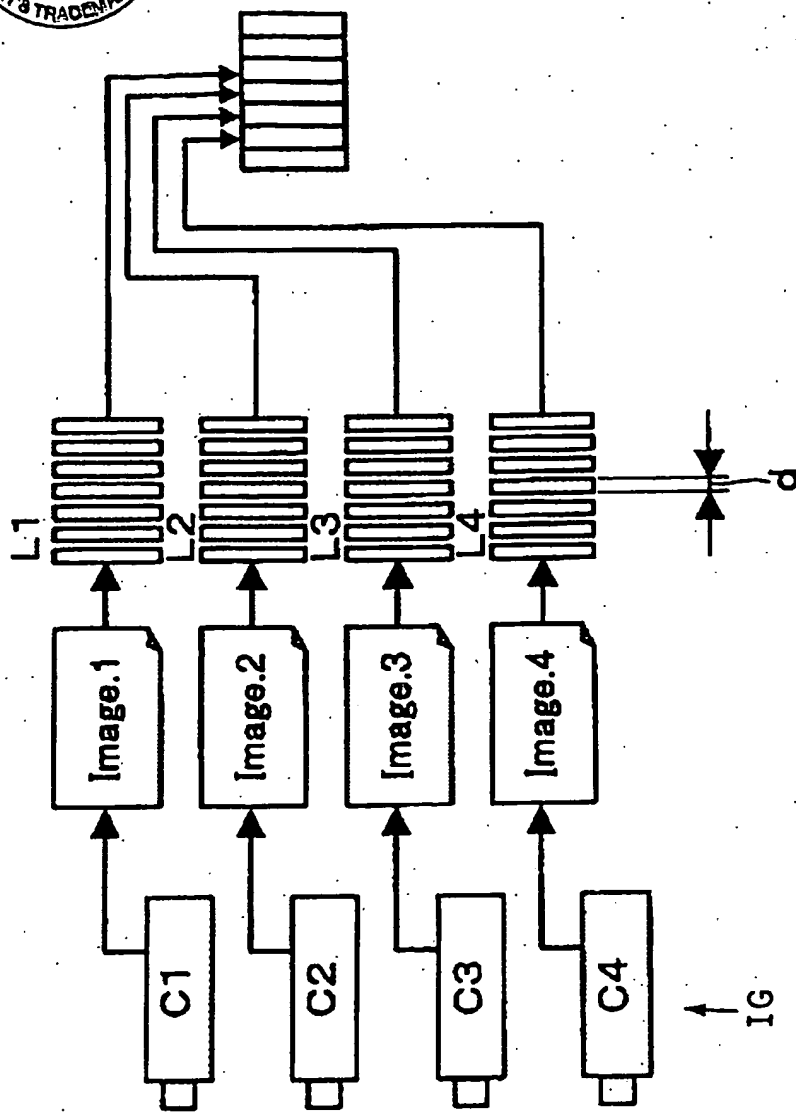
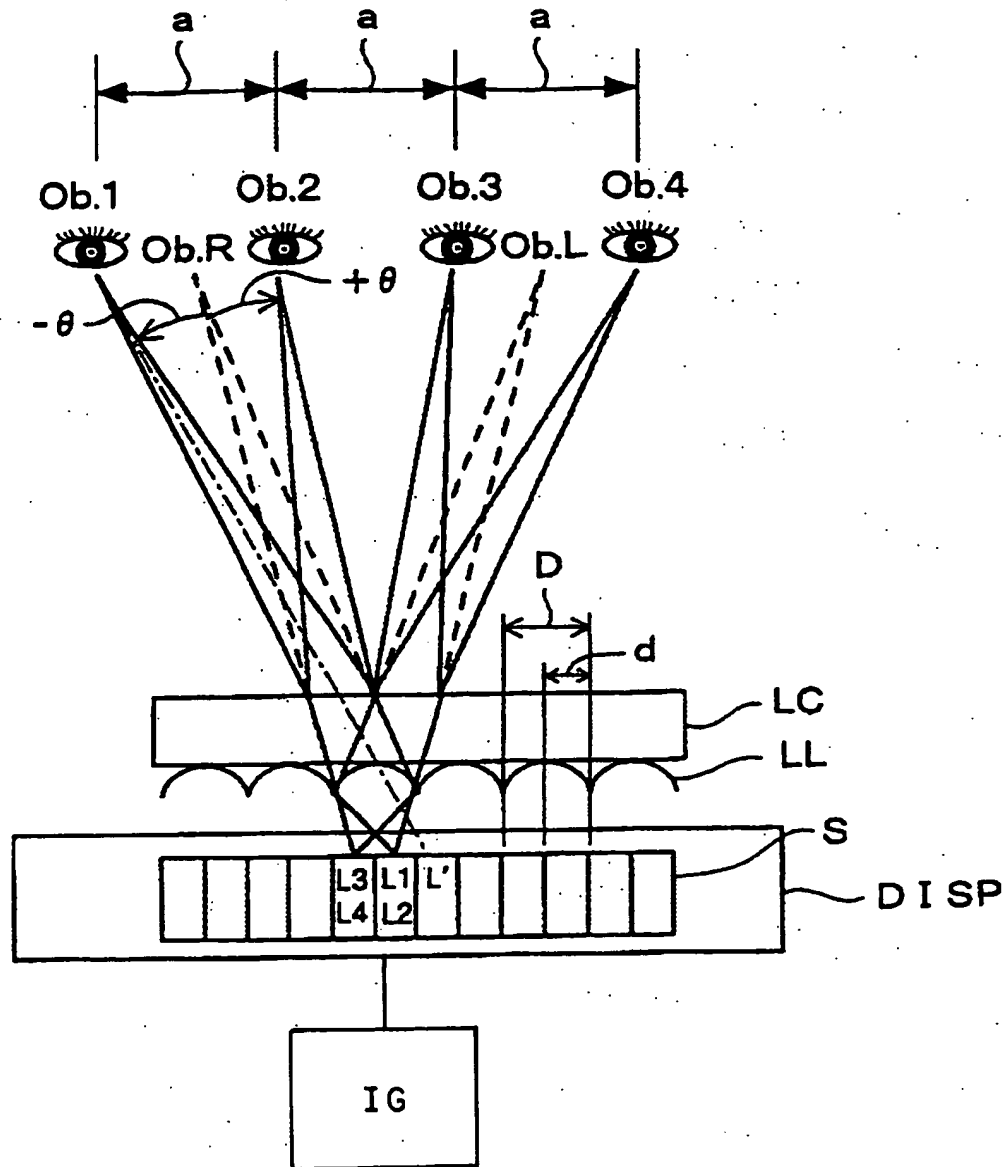


FIG.17



Entry
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FIG.18



Entry
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FIG.19

